REMARKS

Claims 1-8, 11-14, 35 and 36 as amended are pending in the application.

Applicants thank the Examiner for the acknowledgement of Applicants' claim of priority under 35 U.S.C. § 119, as well as the allowance of claims 2 and 4.

Claim 7 was rejected under over 35 U.S.C. § 102(b) over Tewfik. Claim 7 recites that secret information is embedded in an image signal, and that the location of the secret information varies frame by frame. This claim language is neither taught nor suggested by Tewfik.

The Office Action cites to Tewfik at column 5, lines 18-35 for the alleged teaching of the above language of claim 7. The cited portion of Tewfik is as follows.

> In step 11, a wavelet transform is applied along the temporal axis of the video host data, resulting in a multiresolution temporal representation of the video. In particular, the representation consists of temporal lowpass frames and highpass frames. The lowpass frames consist of the static components in the video scene. The highpass frames capture the motion components and changing nature of the video sequence (i.e., the video host data). The watermark is designed and embedded in each of these components. The watermarks embedded in the lowpass frames exist throughout the entire video scene. The watermarks embedded in the motion frames are highly localized in time and change rapidly from frame to frame. Thus, the watermark is a composite of static and dynamic components. The combined representation overcomes drawbacks associated with a fixed or independent watermarking procedure. (I.e., avoidance of watermark detection by statistical comparison between successive frames is achieved.)

The cited section of Tewfik teaches that a watermark is embedded into a temporal lowpass frame and high pass frame through Wavelet transformation. The section is silent as to where the watermarks are placed in the frames, or that the location varies between frames. Nothing in this section of Tewfik, or any other section of Tewfik, teaches varying the location of the secret information frame by frame as recited in Applicants' claim 7.

Claim 8, which depends from claim 7, was also rejected under 35 U.S.C. § 102(b) as anticipated by Tewfik. For at least the reasons discussed with respect to claim 7, claim 8 is likewise patentably distinct over Tewfik. Withdrawal of the rejection of claim 8 and allowance of the same is therefore requested.

Independent claims 1, 5, 11 and 13 were rejected over 35 U.S.C. § 103 over Tewfik in view of Rhoads. Each of these independent claims recite embedding secret information in the image signal, and embedding position information in the image signal that identifies the location of the secret information in the image signal. This claim language neither is taught nor disclosed by the prior art.

The Office Action concedes that Tewfik does not teach embedded position information that identifies the location of the secret information, and thus seeks to supply what is lacking from Tewfik by reliance on Rhoads at column 16, lines 5-30. The cited portion of Rhoads is as follows.

> Apart from the basic need of identifying a signal or image as a whole, there is also a rather ubiquitous need to detect possible alterations to a signal or image. The following section describes how the foregoing embodiment, with certain modifications and improvements, can be used as a powerful tool in this area. The potential scenarios and applications of detecting alterations are innumerable.
>
> To first summarize, assume that we have a given signal or image which has been positively identified using the basic methods outlined above. In other words, we know its N-bit identification word, its individual embedded code signal, and its composite embedded code. We can then fairly simply create a spatial map of the composite code's amplitude within our given signal or image. Furthermore, we can divide this amplitude map by the known composite code's spatial amplitude, giving a normalized map, i.e. a map which should fluctuate about some global mean value. By simple examination of this map, we can visually detect any areas which have been significantly altered wherein the value of the normalized amplitude dips below some statistically set threshold

based purely on typical noise and corruption (error).

The above portion of Rhoads teaches examining the signal as a whole to detect altered areas. There is no teaching of an embedded watermark or position signal that identifies the location of the secret information. Thus, even if Tewfik was modified with Rhoads, it would not teach all of the limitations of Applicants' claims 1, 5, 11 and 13.

Further, Tewfik is not properly combined with Rhoads. It is well settled that suggestion for a combination must come either from the references themselves or from the knowledge of skill in the art. The Office Action states that it would be obvious to combine the teachings of Rhoads with Tewfik because "this would allow for more rapid detection of the watermark data." Yet Tewfik does not disclose any drawback for lack of speed with its particular embodiments, and Rhoads does not teach that use of the cited feature of its disclosed embodiments would result in any speed enhancements. Indeed, computing technology is so fast today that speed is no longer an issue, and it is well documented in public literature that computer companies have turned away from speed enhancements in favor of quality enhancements. In view of the lack of teachings in the references and a different direction in the computing art as a whole, there is no suggestion to combine Tewfik and Rhoads to enhance speed.

Accordingly, claims 1, 5, 11 and 13 are patentably distinct over the applied art. Withdrawal of the rejection and allowance of the same are therefore requested.

Claims 3, 6, 12, 14, 35 and 36, which depend from claims 1, 5, 11 or 13, were also rejected over 35 U.S.C. § 103 over Tewfik in view of Rhoads. For at least the reasons discussed with respect to the independent claims, the noted dependent claims are likewise patentably distinct over Tewfik and Rhoads. Withdrawal of the rejection of the noted dependent claims and allowance of the same are therefore requested.

Accordingly, the application is now in condition for allowance and a notice to that effect is respectfully requested.

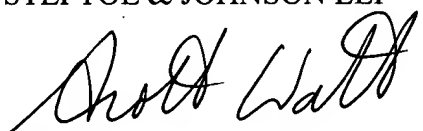
All amendments herein are made for clarity, a purpose unrelated to patentability. No amendment is responsive to any rejection or prior art.

If a telephone conference would be of value, the Examiner is requested to call Applicants' undersigned attorney at the number listed below.

The Commissioner is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293 (Order No. 28951.1077/D1).

Respectfully submitted,

STEPTOE & JOHNSON LLP



Roger W. Parkhurst, Reg. No. 25,177
Scott D. Watkins, Reg. No. 36,715

Date: September 6, 2005
1330 Connecticut Avenue, NW
Washington, DC 20036
Tel: 202-429-3000
Fax: 202-429-3902